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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/696,569 | 10/30/2003 | Takamichi Kudo | Q78244 | 5905 |
| 23373 | 7590 | 04/05/2005 | | EXAMINER |
| SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | LIN, TINA M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2874 | |

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/696,569 | KUDO, TAKAMICHI | |
| | Examiner | Art Unit | |
| | Tina M. Lin | 2874 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-6 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 07 April 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 10/30/2003, 08/04/2004, 05/07/2004
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,949,939 to Kyoya in view of U.S. Patent 6,558,048 to Kuhara et al. Kyoya discloses a laser diode (1) emitting an optical signal, an optical fiber (F) and a lens sleeve (3) interposed between the diode and the fiber so to optically connect the two elements. (Figure 1)

Kyoya fails to disclose the light-emitting element to have a small emission angle between 15 to 25 degrees and around 18 degrees. However, Kuhara et al also discloses a laser diode module with similar components. Kuhara et al further discloses a laser diode with a smaller aperture angle such as an SSC-LD (E) having an angle of 20 degrees would give a stronger light power to the fiber. (Column 16) Furthermore, Applicant states on page 11 of the specification that with a smaller emission angle, a higher intensity output can be obtained. Since Kyoya does not further detail or limit the characteristics of the laser diode and Kuhara et al and Applicant disclose a laser diode having a small emission angle for the same purpose, it would have been

obvious at the time the invention was made to a person having ordinary skill in the art to have used a laser diode with a small emission angle between 15 to 25 degrees, and around 18 degrees.

Kyoya also fails to disclose the optical fiber to be movable relative to the lens sleeve. However, Kyoya discloses the optical fiber to be removably fixed, meaning the optical fiber can be moved and removed before being fixed into a desired position. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to be able to move the optical fiber relative to the lens sleeve.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,949,939 to Kyoya in view of U.S. Patent 6,558,048 to Kuhara et al and in further view of U.S. Patent 5,537,503 to Tojo et al. Kyoya and Kuhara et al disclose all discussed above but fail to disclose the optical fiber to include a glass fiber. However, Tojo et al discloses a similar laser diode module with an optical fiber. Tojo et al further discloses the optical fiber to be a glass fiber. (Column 5) Therefore, since Kyoya and Kuhara et al does not further detail or limit the characteristics of glass fibers and glass fibers are commonly used in the art as shown by Tojo et al, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a glass fiber.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The documents submitted by applicant in the Information Disclosure Statements have been considered and made of record. Note attached copies of forms PTO-1449.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Lin whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TML


AKM ENAYET ULLAH
PRIMARY EXAMINER